



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/754,739	01/09/2004	James L. Skinner	3174-000020	1193
27572	7590	05/01/2006	EXAMINER	
HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303			DANG, ROBERT TRONG	
			ART UNIT	PAPER NUMBER
			2838	

DATE MAILED: 05/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/754,739

Applicant(s)

SKINNER, JAMES L.

Examiner

Robert T. Dang

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 and 26-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 and 26-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 8-9, 12-16, and 21-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fussell (4023071).

As to claims 1, 3, 8-9, 13, and 22-23, 25, and 27 Fussell discloses in figure 3, a motor drive for an electric machine, comprising: a live line (1); a second line (2); a ground line (3); and a surge protector including: a first varistor (30); and a gas discharge tube (GDT) (34) that is non-conductive below a trigger voltage and that is conductive above said trigger voltage, wherein said first varistor and said GDT are connected in series between one of said live line and said second line and said second line and said ground line (3); however, he does not disclose the trigger voltage being 1230 volts. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a trigger voltage of 1230 volts, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980)

As to claims 2, 14, and 26 Fussell discloses in figure 3, wherein said first varistor has a voltage threshold that is less than a hi-pot test voltage and said trigger voltage,

wherein said hi-pot test voltage is less than said trigger voltage, and wherein said trigger voltage is less than a surge voltage (see col. 2, lines 32-46).

As to claims 4, 15, and 27 Fussell discloses in figure 3, wherein when a voltage on said live line exceeds said trigger voltage, said first varistor, said second varistor and said GDT clamp excess voltage between said live line and said second line and clamp excess voltage between said second line and said ground line (see col. 2, lines 32-46).

As to claims 5 and 16, Fussell discloses in figure 3, wherein said surge protector further includes a fuse (32) that is connected in series with said live line and that creates an open-circuit when current flowing through said fuse exceeds a current threshold of said fuse (see col. 5, lines 26-34).

As to claims 12 and 21, Fussell discloses in figure 3, wherein said first and second varistors are metal oxide varistors (MOVs).

As to claims 24, Fussell discloses in figure 3, a method for insulation testing an electric machine with a surge protection circuit without using a jumper circuit to disconnect said surge protection circuit during said insulation testing, comprising: providing an electric machine having a live line (1), a ground line (3) and a second line (2); connecting a first varistor (30) and a gas discharge tube (34) (GDT) in series between one of a live line and a second line and said second line and said ground line; and performing said insulating testing; however, he does not disclose the trigger voltage being greater than 1230 volts. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate a trigger voltage greater than 1230

volts, since it has been held that discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 6 and 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fussell (4023071) in view of Harlan et al (5606232).

As to claims 6 and 17, Fussell discloses all the limitations as applied in claim 1, but does not disclose a rectifier used to communicate with said live, second, and ground line to convert AC voltage to DC voltage. Harlan teaches in his motor protection system a rectifier that is used to convert AC to DC voltage (see col. 2, lines 56-64). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device and add a rectifier in order to run the motor.

Claims 7 and 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fussell (4023071) in view of Harlan et al (5606232) and further in view of Nakamura USPGPUB (20020163820).

As to claims 7 and 18, Fussell, as modified by Harlan, lacks the doubler type rectifier in the claimed invention. Nakamura teaches the use of a doubler type rectifier

Art Unit: 2838

(see page 1, paragraph [0015]). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the motor protection device of Fussell as modified by Harlan, with a doubler type rectifier in order to test the equipment during insulation testing to see how much voltage the varistors can withstand.

Allowable Subject Matter

Claims 10-11, and 19-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter:

For claims 10 and 19, the prior art of record does not disclose or suggest in the claimed combination: a first capacitor that communicates with a first output of said rectifier and an opposite end that communicates with said second line; there is also no second capacitor that has one end that communicates with a second output of said rectifier and an opposite end that communicates with said second line.

For claims 11 and 20, the prior art of record does not disclose or suggest in the claimed combination: a first and second resistor in parallel to a first and second capacitor respectively.

Art Unit: 2838

The art of record does not disclose or suggest the above claimed features, nor would it be obvious to modify the art of record so as to include either of the above limitations.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert T. Dang whose telephone number is 571-272-8326. The examiner can normally be reached on M-F, 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Karl D. Easthom can be reached on 571-272-1989. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RTD

A handwritten signature in black ink, appearing to be 'Edward H. Tso', written in a cursive style.

**Edward H. Tso
Primary Examiner**